

IN THE CLAIMS

Please amend the claims as follows:

Claim 1-14 (Cancelled).

Claim 15 (Currently Amended): A liquid injection system ~~according to claim 1~~
comprising:

a liquid syringe having a cylinder with a cylinder flange disposed on and around an end thereof and a piston slidably inserted in said cylinder and having a piston flange disposed on and around an end thereof; and

a liquid injector for holding and moving at least said cylinder flange and said piston flange relatively to each other;

said liquid injector comprising a cylinder gripping mechanism for gripping said cylinder such that said cylinder has a longitudinal direction oriented forwardly and rearwardly, a piston pusher supported slidably in forward and rearward directions for pushing said piston at least forwardly, a pair of engaging claws laterally openably and closably mounted on said piston pusher for individually engaging left and right edges of a front face of said piston flange, and gripping detecting means for detecting when said piston flange is gripped by said engaging claws;

wherein said gripping detecting means comprises means for detecting when said engaging claws are opened from an initial closed position into opposite sides and then closed.

Claim 16 (Original): A liquid injection system according to claim 15, wherein said gripping detecting means comprises means positioned on an outer surface of said piston pusher for detecting when said piston flange is pressed by an inner surface of each of said engaging claws.

Claim 17 (Currently Amended): A liquid injection system according to claim 15, wherein said gripping detecting means comprises means positioned outside of said piston pusher for detecting ~~when said piston flange is pushed by~~ the pressure applied by each of said engaging claws which are opened.

Claim 18 (Original): A liquid injection system according to claim 17, wherein said gripping detecting means comprises a number of sheet-like touch switches mounted in succession on a tape.

Claim 19 (Original): A liquid injection system according to claim 15, wherein said gripping detecting means comprises:

a pair of light-emitting elements for emitting respective light beams along paths interruptable by said engaging claws which are opened; and

a pair of light-detecting elements for detecting light beams emitted respectively from said light-emitting elements along paths which are not interrupted by said engaging claws.

Claims 20-23 (Cancelled).

Claim 24 (Currently Amended): A liquid injector ~~according to claim 22,~~ for injecting a liquid from a liquid syringe having a cylinder with a cylinder flange disposed on and around an end thereof and a piston slidably inserted in said cylinder and having a piston flange disposed on and around an end thereof, said liquid injector being arranged to hold and move at least said cylinder flange and said piston flange relatively to each other, said liquid injector comprising:

a cylinder gripping mechanism for gripping said cylinder such that said cylinder has a longitudinal direction oriented forwardly and rearwardly;

a piston pusher supported slidably in forward and rearward directions for pushing said piston at least forwardly;

a pair of engaging claws laterally openably and closably mounted on said piston pusher for individually engaging left and right edges of a front face of said piston flange; and

gripping detecting means for detecting when said piston flange is gripped by said engaging claws,

wherein said gripping detecting means comprises means for detecting when said engaging claws are opened from an initial closed position into opposite sides and then closed.

Claims 25-32 (Cancelled).